Topics in Primary Care Medicine

A Clinician's Guide to Helping Patients Change Behavior

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"Topics in Primary Care Medicine" presents articles on common diagnostic or therapeutic problems encountered in primary care practice. Physicians interested in contributing to the series are encouraged to contact the series' editors.

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Helping patients to change behavior is a challenge for all physicians practicing clinical medicine. Physicians possess great understanding of disease, but treatment and prevention frequently rely on patients' ability and willingness to implement medical and life-style changes. Adherence to a prescribed regimen of medication occurs only 50% to 70% of the time, and only 5% to 30% of patients comply with preventive measures such as quitting smoking, losing weight or changing diet. The latter figures are particularly discouraging because evidence strongly suggests that a major improvement in the health of Americans will require changes in life-style and personal habits.

Most physicians do not feel confident about motivating patients to engage in health-promoting behavior, in part because of the difficulty of the task and partly because of a lack of training in this aspect of practice. In this article we present a guide to behavior therapy with basic techniques that can be incorporated into medical practice. Rather than presenting a complete conceptual discussion of all behavioral approaches, our goal is to give specific examples of behavioral strategies that allow clinicians to be more effective.

Behavior Therapy

"Behavior therapy" is a broad term that encompasses several different approaches to change. A brief description of one conceptual model will place subsequent suggestions in perspective.

Factors that influence behavior in patients include information about the need for change, patients' motivation to initiate new action and their ability to carry out new patterns of behavior successfully. Physicians often concentrate on presenting information to patients, and certainly that is important. Studies suggest that information presented carefully and in simple, nonthreatening language improves adherence. Information alone, however, is insufficient for producing change in most people. Physicians regularly see patients who agree that change would be desirable, but who seemingly lack the capacity or "will power" to bring it about. Therefore, motivation and ability are essential elements of change that should receive more attention from physicians.

Perceptions of their susceptibility or vulnerability to an illness, the perceived consequences of leaving the illness untreated and an evaluation of the benefits and potential risks of taking action are essential elements that determine patient motivation. Patients are also strongly influenced by "cues to action," events that affect their sense of vulnerability, such as current symptoms, disease in family members or news media information. By being aware of this, physicians can direct attention to symptoms or information that may enhance motivation. Physicians can also affect motivation through their interaction with patients. A willingness to adhere to physicians' advice is influenced by the quality of the relationship. Adherence to the recommended treatment decreases when physicians are perceived as lacking warmth, when they fail to elicit the patient's point of view or when the interaction is viewed as negative. Motivation may be improved by allowing patients to participate more actively in their care by sharing in decisions and development of strategies.

Physicians' effect on behavior may be greatest in helping motivated patients to increase their ability to change. We will give this greatest attention because one of the best predictors of future action seems to be a person's sense of his or her ability or personal efficacy. If someone does not feel capable of carrying out an action, persuasion or exhortation are unlikely to change that perception. There are a number of well-tested strategies that can increase efficacy once physician and patient agree that change needs to take place. In the following discussion we outline four general strategies for helping patients bring about a desired change, with specific examples and techniques to illustrate each strategy. Table 1 lists the strategies and the techniques that fall in each category.

Though the strategies are discussed as ways to help people bring about change, they can help to increase motivation as well. They are useful only in the context of an ongoing physician-patient relationship when the patient wants to change. They cannot be applied *to* someone but require *cooperative effort over time*. Physicians should also be realistic in their expectations. Behavior is patterned over years and is seldom changed as the result of one encounter. Patience and repetition are often prerequisites for success.

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TABLE 1.—*Behavioral Change Strategies*

Goal Setting	*Modifying the Environment*	*Developing New Experiences*	*Incremental Change*
Specifying a goal	Stimulus control	Monitoring	Shaping
Contracting	Reinforcement	Rehearsal	
		Paradoxical intention	

Goal Setting

Setting goals is one of the time-honored strategies of behavioral therapists. Establishing measurable goals requires a patient to determine exactly what is to be accomplished. Goals also provide benchmarks for determining success. If neither physicians nor patients establish measurable goals, frustration will occur.

Specifying a goal. General goals (such as "controlling diabetes") are less useful than those that are specific and measurable, such as a weight loss of 20 lb, a fasting glucose level below 150 mg per dl and a glycohemoglobin concentration of 9% or less. Goals need not be restricted to treating the disease since improving function, comfort or control provides a great sense of purpose and progress for patient and physician. It is important to document the goals in the medical record to ensure that follow-up occurs at the patient's next medical visit. Vague or unmeasurable goals can lead to apparent agreement without commitment to the specific actions needed for change. If agreeing to goals seems to be difficult, it may be that the patient's understanding or commitment is limited, or that the physician's and the patient's points of view differ. That should signal a need to explore further the patient's attitudes and understanding of the problem. If there is not commitment to the same goals, exhorting the patient is less effective than providing the patient time to think about what is to be accomplished.

Contracting. Contracting is one way of negotiating goals, whereby a patient agrees to achieve a specific goal or behavior by a predetermined time in exchange for a reward. Contracts with monetary or other material incentives are not very practical in a physician's office, but even without a material reward, the physician's approval is an important "payment" for successful completion of a task. Breaking a larger goal, such as losing 30 lb, into a series of smaller contracts, such as 5 lb by the next visit, translates the general goal into specific action. Verbal contracts can be recorded in the medical chart with the patient watching so that they are perceived as important and followed over time.

Modifying the Environment

Behavioral approaches recognize the importance of creating environments that encourage change. One wants to avoid settings that are associated with unwanted behaviors and to reduce contact with substances or activities that are to be eliminated. It is much more difficult to control urges to eat "forbidden" foods or to smoke cigarettes if they are readily available.

Stimulus control. Stimulus control is an example of a specific technique to eliminate environmental cues that encourage unwanted behavior and to provide reinforcement of desired change. For example, when advising patients to quit smoking, it is useful for them first to monitor where and when they smoke, including the physical location, time of day, preceding activities and emotional setting. This information can then be used to develop a list of situations they should avoid when attempting to quit. For most people, situations that are known to trigger a strong urge to smoke, such as a cocktail party, alcoholic drinks and other smokers, are best avoided. Conversely, sitting in a nonsmoking area or being with friends who do not smoke provides a stimulus congruent with the goal.

Reinforcement. The environment can also be structured to reinforce behavior by rewarding and encouraging positive steps made by the patient. Physicians reinforce behavior powerfully with praise and approval and also by selective attention to desired behavior. Disapproving or punishing negative behavior is generally thought to be less effective than positive rewards because the former can cause defensiveness, anger or avoidance on the part of the patient.

Reinforcement may be best provided in a patient's own environment by the patient's family and friends. Physicians are generally trained to work one-on-one with patients and may forget to involve family members or friends in patient care. There is a considerable body of literature suggesting that encouragement and reinforcement from families improve significantly patients' compliance with exercise programs, medication adherence, weight loss and other treatments.

Unwanted behavior can sometimes be reinforced unintentionally by family members, unbeknownst to the physician.

A 70-year-old woman visited her physician several times with back pain. Examination and radiologic studies revealed degenerative arthritis without signs of nerve root compression or other abnormality. The physician prescribed aspirin, regular walking and Williams's flexion exercises. During subsequent visits the patient stated that there was no improvement and that she was not able to do the exercises. Discussion with the patient's daughter revealed that the patient lived alone and was quite lonely and very anxious about engaging in any new activity. When she complained of pain, the family was advising her to rest and to go back to the physician. When she understood the nature of the problem, the daughter's approach shifted from trying to protect her mother to encouraging activity and exercise. She began to call her mother daily to reinforce the physician's prescription and to encourage the patient. Over time, the patient's complaints of pain gradually diminished, and her activity increased.

With any chronic problem, discussion of goals and methods of encouraging appropriate behavior with family members can be enormously helpful to all concerned.

Developing New Experiences

New experiences increase people's belief in their ability to carry out new behaviors. Physicians are in a unique position to help patients plan new experiences that enhance confidence and encourage change. Behavioral change in one area may bring about changes in self-image and esteem and allow accomplishments in other aspects of a person's life. Monitoring, rehearsal and paradoxical intention are specific techniques for helping patients learn from experience.

Monitoring. Monitoring is one of the frequently used behavioral techniques. Self-monitoring of blood pressure, food intake, blood glucose levels, cigarettes smoked and even expiratory flow rates is a way in which patients can become more aware of events occurring in their lives. When patients monitor their progress, they can see for themselves the causes and consequences of their behavior and can take corrective action. If patients become aware that their behavior causes particular outcomes, it strengthens motivation and enhances a sense of control. Monitoring can also be used before therapy to convince the patient of the reality of the problem and to determine where change is needed. For example, instructing a diabetic patient to monitor his or her own blood glucose levels

develops awareness of the extent of the problem and the need for change.

Rehearsal. Rehearsal requires patients to plan and rehearse in advance exactly how they will behave in a specific situation. This is considerably more effective than simply providing verbal instructions. Rehearsing an activity ahead of time provides an opportunity to develop confidence and skill in dealing with the actual circumstance. This technique has been used very effectively, for example, in teaching patients how to deal with postoperative pain. Patients who learned what to expect after an operation and rehearsed how to use medication and other techniques to manage postoperative pain required less analgesic medication and left the hospital sooner than unrehearsed patients. Rehearsal is most effective if patients have to develop their own strategies to overcome obstacles. The physician can assume the role of an antagonist or provide problems for the patient to solve. Examples for which rehearsal can be used by physicians are role playing with a patient on how to manage a situation that involves the temptation to drink or smoke, preplanning where and how to fit medication into a busy schedule or rehearsing how to manage an asthmatic attack or an exacerbation of diabetes mellitus.

Paradoxical intention. This can be effective with patients who resist suggestions by either failing to follow through or deprecating advice. Generally, it is not useful to push a patient to accept a therapeutic plan. An alternative approach is to withdraw all suggestions or to prescribe that the patient continue the undesirable behavior. The latter can be done only if it presents no immediate danger to the patient. One example of this might be to tell a smoker who is undecided about quitting to continue smoking. In fact, a suggestion can be made to increase cigarette smoking and to monitor its effects on relevant symptoms such as cough, exercise capacity or taste. Paradoxical instructions are most applicable with patients whose resistance to constructive suggestions can be used to dramatize the problem.

A 60-year-old woman with nondeforming osteoarthritis of the knees and chronic pain berated the doctor at each medical visit for not doing anything to improve her pain. Trials of virtually every anti-inflammatory drug, tricyclics, physical therapy, heat, cold applications and injected steroids had been unsuccessful. In many instances the patient used the treatment only briefly and in less than the prescribed amount. Finally the physician said he could offer nothing more. He suggested that she stop all medications and treatment because they obviously were not helping. He expressed sympathy about her pain but offered no treatment. The patient herself then suggested that one of the medications had worked "a little bit" and that she would try again. At the next visit, she again complained of pain but was satisfied with her current medication.

Sometimes patients paradoxically become more involved in their own therapy and more accepting of the limits of the problem when the physician stops offering suggestions.

Incremental Change

People often can accomplish in small steps what they cannot conceive of doing all at once. Although some people can simply discard long-standing habits, most will find the task so difficult that they will give up after an initial attempt and slide back to their old behavior. Incremental changes provide a way to build new experiences in small steps without too much risk and allow a practitioner to reinforce patient success in accomplishing the early tasks. This is also a way of sequentially adding both the skills and self-observation needed to achieve the overall goal. Small failures can be useful. They can be used as opportunities to identify obstacles or pitfalls and to learn how to avoid those problems in the future.

Shaping. Designing a therapeutic program to fit patient preferences and making incremental changes allows patients to adapt slowly to a new behavior. For example, with a patient reluctant to take medication, beginning a drug regimen using a small (and even ineffective) dose may avoid side effects and allow the patient to become used to the idea of taking the medicine.

A 49-year-old woman with hypertension had blood pressures averaging 190/110 mm of mercury. On two previous occasions side effects developed when she was taking antihypertensive medication, and she became frightened of taking them. Consequently, she had tried other approaches including salt restriction, exercise, biofeedback and relaxation exercises, none of which were successful. Home monitoring of blood pressure was used to convince her that her blood pressure was consistently elevated. A regimen of metoprolol, 25 mg daily, was then begun with her consent. At this dose it had no therapeutic effect, but no side effects. Over a period of months the dose was gradually increased to bring about blood pressure control with only mild side effects.

Patients often have more than one problem. A treatment program or even a diagnostic workup can be added incrementally with a patient's input and consent, whereas a sudden confrontation of too many changes at once may produce a negative response.

Summary

Perhaps the greatest power of behavior therapy lies in its assumption that change is possible through awareness and learning. Dysfunctional behavior is viewed as a learned pattern that is reinforced by past experiences, attitudes, environment and personality. Knowledge is only the first step for patients to change behavior. They must commit themselves to specific goals and engage in the process of learning that creates new experiences and often new perceptions of their abilities. An incremental process allows patients to deal with their resistance to change at a more manageable pace and allows them to build on earlier successes. Changes can then be reinforced by the physician and other important people in a patient's life to encourage continued progress. Keeping the overall principles of behavior therapy in mind, a specific program can be developed that fits the needs of the patient and the problem.

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